

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Parts 1, 21, 73, 74 and 101 of the)	WT Docket No. 03-66
Commission's Rules to Facilitate the Provision of)	RM-10586
Fixed and Mobile Broadband Access, Educational)	
and Other Advanced Services in the 2150-2162)	
and 2500-2690 MHz Bands)	
)	
Part 1 of the Commission's Rules – Further)	WT Docket No. 03-67
Competitive Bidding Procedures)	
)	
Amendment of Parts 21 and 74 to Enable)	MM Docket No. 97-217
Multipoint Distribution Service and the)	
Instructional Television Fixed Service)	
Amendment of Parts 21 and 74 to Engage in Fixed)	
Two-Way Transmissions)	
)	
Amendment of Parts 21 and 74)	WT Docket No. 02-68
of the Commission's Rules With Regard to)	RM-9718
Licensing in the Multipoint)	
Distribution Service and in the)	
Instructional Television Fixed Service for the)	
Gulf of Mexico)	

REPLY COMMENTS OF THE EDUCATION COMMUNITY

The American Association of Community Colleges (AACC), American Association of School Administrators (AASA), American Association of State Colleges and Universities (AASCU), American Association of University Women (AAUW), American Council on Education (ACE), American Federation of Teachers (AFT), Association of American Universities (AAU), Association of Community College Trustees (ACCT), Association of Educational Service Agencies (AESAs), Association of Jesuit Colleges and Universities (AJCU), Association of Research Libraries (ARL), California Community Colleges, Central Dakota Telecommunications Consortium,

Consortium for School Networking (CoSN), Council of Chief State School Officers (CCSSO), Denver Public Schools, EDUCAUSE, Florida Community College System, Huntsville City Schools ETV, International Society for Technology in Education (ISTE), Kirkwood Community College in Iowa, KRCB Television in Santa Rosa, California, National Association of Black School Educators (NABSE), National Association of College and University Business Officers (NACUBO), National Association of Independent Schools (NAIS), National Association of State Universities and Land-Grant Colleges (NASULGC), National Education Association (NEA), National Education Knowledge Industry Association (NEKIA), National Parent Teacher Association (PTA), National Rural Education Association (NREA), North Carolina Community Colleges, Rural Schools and Community Trust, United States Distance Learning Association (USDLA), and University Continuing Education Association (UCEA) (collectively, “the Education Community”) submit these comments in reply to the comments filed in response to the *Notice of Proposed Rulemaking and Memorandum Opinion and Order*, FCC 03-56, in WT Docket No. 03-66 *et al.*, released April 2, 2003 (“NPRM”), which proposes fundamental changes to the ITFS/MDS frequency allocation plan and rules.

I. INTRODUCTION

The Education Community is comprised of national education organizations that collectively represent virtually all of the interests of the elementary and secondary schools, community colleges, and universities. A detailed description of the Education Community members is attached hereto as Appendix A. Some of our organizations’ members hold ITFS licenses, and all of them benefit from the educational services ITFS provides. We understand that the principal purpose of this proceeding is to adopt new

technical rules to spur the transition to digital services on the ITFS band. We welcome that transition and look forward to the enhanced services that it will bring to the education community. Nevertheless, the Education Community has joined together to express its serious concerns with respect to the proposed changes in eligibility requirements for ITFS licensees. We agree with the CTN/NIA comments and other commenters that the proposals to eliminate the educational services requirement and to open eligibility for ITFS licenses to commercial entities represent a wholesale assault on this critical educational resource. Together, these proposals would open the door for commercial enterprises to acquire ITFS licenses and ultimately eliminate educational activity in the 2.5 GHz band. We submit that the Commission's goal of developing robust and innovative digital services on the ITFS band can be amply met under current eligibility rules.

II. DISCUSSION

A. ITFS is a Valuable Educational Resource That Must Be Preserved

The Instructional Television Fixed Service (ITFS) band is a highly valuable resource for the educational community. ITFS licensees make extensive use of the spectrum to provide formal classroom instruction, distance learning, and videoconferencing to a wide variety of educational users throughout the nation, including educational institutions, community centers, hospitals, nursing homes and residences. In fact, ITFS is the only spectrum specifically set aside by the Commission and controlled by educators to provide such educational support services. Although ITFS licensees traditionally deliver last mile point to multi-point educational video and audio

programming, the spectrum licensees are beginning to transition their services to digital uses and provide needed broadband, two-way access to the Internet.¹

For more than 40 years, ITFS has provided important educational services to students and teachers; currently there are more than 1,200 licensees around the country holding over 2,000 licenses, serving more than 70,000 individual sites, including K-12 schools, universities, community colleges, and non-profit institutions. Indeed, the record is replete with examples of the value of ITFS spectrum to the educational community. A small sampling of the comments filed in this proceeding reveal the substantial impact that the ITFS licensees have on education in the United States:

- The Catholic Television Network and The National ITFS Association
 - Provides programming to 600,000 students and is a critical “last mile” distribution channel for a wide variety of valuable services, including the provision of formal telecourses to schools, hospitals, workplaces and other places of learning.
- The School Board of Miami-Dade County, Florida
 - Provides programming to 360,000 students on twenty channels. Through the system’s Teacher’s Choice Video-On-Demand Service, teachers have the ability to order and view curriculum and training videos 24-hours-a-day/seven days a week. Each year, this service averages about 11,000 requests from more than 1,200 teachers in over 290 school district locations.
- South Carolina Educational Television Network
 - Provides programming to 469,359 students on thirty-two channels. It has established 35 Distance Education Learning Centers that use ITFS as broadcast hubs that provide programming to all 85 school districts in South Carolina.
- Archdiocese of Los Angeles
 - Provides programming to 278 schools and allows teachers to have access to a wide variety of courses such as science, language arts, math, social studies, religion/values, technology, languages, art and physical education.
- The Archdiocese of Brooklyn

¹ Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258, *First Report and Order and Memorandum Opinion and Order*, 16 FCC Rcd 17222 (2001) (“First Report and Order”).

- Provides educational programming to 70,000 students on three channels. In addition to educational programming, it is also used to transmit on-demand instructional television for students, teachers, medical personnel at thirteen area hospitals and nursing programs.
- The School Board of Broward County
 - Provides programming to several hundred thousand users through 120 video-conferencing units, nine academic high school courses. The county uses ITFS spectrum to transmit 1250 academic programs, virtual field trips and special events for elementary, middle and high school students. The spectrum also enables students to take courses for high school credit online, by allowing them to enroll in one or more courses affiliated with the Virtual Florida School, while still attending their traditional school.
- Education Service Center Region 10
 - Provides instructional programming to public educational institutions across the State of Texas on 65 channels.
- The Archdiocese of New York
 - Provides programming to 47,000 students in more than 100 schools and offers over 150 courses in elementary, secondary, in-service training and adult education levels. School programming follows the New York State curriculum and offers special features, such as “Dial-A-Lesson” which allows teachers to arrange for a particular program to be aired on the date and time of their choice.
- Illinois Institute of Technology
 - Provides programming to 2,200 students on eight channels. IIT offers nineteen master’s degree programs, thirty-three certificate programs, and courses in engineering, the sciences, business and law. In sum, IIT airs over five hundred hours of educational programming each week to fifty-eight corporate and public sites.
- Stanford University
 - Provides programming to over 6,000 students on five channels. Stanford transmits hundreds of courses each year in a variety of engineering and scientific specific areas to enrolled students, as well as to students at business sites throughout the Bay Area.
- Northeastern University
 - Provides programming to approximately 5,000 students on one channel. Northeastern transmits credit and noncredit courses in arts and sciences, business administration, wellness education, engineering and engineering technology as well as complete graduate degree programs in electrical and computer engineering.
- Colorado State University

- Provides educational material to a broad constituency via the ITFS spectrum. ITFS spectrum is the only way it can reach member of the community separated by the “digital divide.”

But the impact of ITFS goes far beyond mere numbers. Some ITFS users, such as Kirkwood Community College in Iowa, use this resource to bridge a digital-divide created by the enormous geographic area and low population density in its service area. Kirkwood Community College uses the spectrum to broadcast educational programming to communities in a 35 mile radius from its main campus, and can be seen in 95,000 homes that subscribe to cable television. Similarly, Tarrant Community College broadcasts college courses 24 hours a day, seven days a week to campus satellite locations and private residences in and around Fort Worth, Texas. Tarrant Community College distance education serves more than 6,600 students, many of whom are balancing education and employment. With years of experience in distance education, Tarrant Community College educators have found ITFS to be a popular answer to their distance education needs.

Also located in Texas, the greater Houston metropolitan area (Region IV) contains 25% of the student population of Texas. With such a large number of students, ITFS spectrum is essential in delivering educational opportunities and resources to students. Educational programming through ITFS is available to more than 1110 school campuses in Region IV, and airs a broad range of programming to meet the varied needs of the population. Region IV also provides enrichment, field trips, and professional development programs using the ITFS system, as well as distance-learning courses.

The University of Minnesota uses ITFS spectrum to educate those already in the workforce. **UNiversity-Industry Television for Education (UNITE)** grew out of the

pressing need of employers in the area to provide employers with rigorous, ongoing professional education. The courses UNITE offers through ITFS have become an invaluable resource that local companies use to attract and retain valuable employees. Corporate students are kept abreast of the latest technological advancements by viewing non-credit short courses, colloquia and seminars originated from various college departments.

ITFS has also been used to provide additional training for public servants. California State University, Long Beach, together with several municipalities and other agencies, developed the Masters in Public Administration (MPA) program. The program allows thirty to fifty local government workers and civil servants to attend courses from their workplace or other conveniently located sites. Thanks to the convenience and flexibility of classes offered by ITFS, many public servants have been able to hone their administrative skills by taking classes during times that best accommodate their work schedule.

South Carolina Educational TV (SCETV) uses ITFS to target educationally disadvantaged students. In addition to providing programming, SCETV offers centralized video libraries, interactive math courses, taped student enrichment classes, the SAT Question of the Day and the Literacy Festival Showcase on its ITFS spectrum. The Central Dakota Telecommunications Consortium uses their ITFS spectrum to provide students with courses in foreign language, upper division mathematics, psychology, sociology, art, family and consumer science, and agriculture. As many individual districts were forced to cut staff or drop these subjects, through the ITFS spectrum districts “teamed-up” in hiring full-time teachers and sharing them with each other. The

result is that students have access to quality instruction in a number of districts at the same time, at an affordable price.

The Denver Public Schools similarly utilize ITFS by bringing live classroom programming to its students in Math, Science, Foreign Language and the Arts. In addition, the Denver Public Schools use ITFS to broadcast ESL classes to forty Denver schools with high concentrations of immigrants. ESL classes are broadcast early in the morning, and while their children eat breakfast, parents and their pre-schoolers “attend” ESL class. The result is that more adults pass English competency tests and become US citizens, and the parent’s feel more of a connection and investment in the school. A more detailed list of other uses of the ITFS spectrum by licensees is attached as Appendix A.

The Commission has repeatedly found that ITFS is a valuable educational resource, and has noted the robust use of the ITFS spectrum, which is heavily licensed in nearly every geographic area.² It is therefore incumbent upon the Commission in the instant proceeding to preserve and enhance the ITFS service and take no action that would undermine it as the band transitions to digital services.

B. Allowing Commercial Ownership of ITFS Spectrum and Eliminating the Educational Requirement Would Cause Irreparable Harm to the ITFS Spectrum

The Educational Community opposes any changes in the ITFS eligibility requirements that would either open eligibility for ITFS spectrum to commercial entities or eliminate the longstanding obligation of licensees to provide educational services.

The ITFS service was established to serve the public interest and enhance education.³

² See NPRM at ¶29; Final Report, Spectrum Study of the 2500-2690 MHz Band, March 30, 2001, p. ii; First Report and Order, *supra* n.1.

³ See Educational Television Report and Order, Docket No. 14744, 39 Fcc 846(1963), *recon. Denied*, 39 FCC 873 (1964).

Elimination of the educational obligation would eviscerate the entire foundation of the ITFS system and irreparably damage education.

If eligibility for ITFS spectrum were opened up to commercial entities, educational institutions and other currently eligible licensees would be severely disadvantaged. Educational institutions would be unable to financially compete for available spectrum, thus all new or reassigned spectrum licenses would go to commercial interests. If educators do not control the licenses, the ITFS no longer adequately serve to enhance education, the important public interest for which it was originally allocated. As set forth in greater detail below, each acquisition of an ITFS license by a commercial owner reduces the spectrum available for educational purposes. Once that spectrum is in commercial hands, we can envision no scenario under which an educational institution could reacquire it. Simply put, once it is gone, it is gone. As explained in a New York Op-Ed piece, looking back on New York's decision a few years ago to keep WNYC as a public-broadcast, non-commercial station:

Once public and quasi-public assets slip out of public control, it is almost impossible to retrieve or replace them. While privatizing any one might seem reasonable in the face of problems, the cumulative effect is to destroy a web of institutions that helped keep New York City livable and attractive during decades with many cities drastically declined. In good times, public services and safety nets do not seem so important. In bad times, it is too late to get them back.” *New York Times*, Op-Ed by Joshua B. Freeman, June 3, 2000 *quoted in Comments of CTN and NIA*, page 7.

1. *A Robust Secondary Market is Critical to the Viability of ITFS*

If the Commission permits commercial entities to acquire ITFS spectrum, it would severely damage, if not destroy, the secondary market for ITFS spectrum. The expense of building, maintaining and improving ITFS licensees' infrastructure and technology and acquiring content is costly, often totaling hundreds of thousands of

dollars annually. Educational institutions are particularly vulnerable to the economic downturn and its impact on state budgets and charitable giving. The leasing of excess capacity provides licensees with the financial capacity to maintain and expand their ITFS infrastructure and partners to help with the transition to new digital services. Without a robust secondary market, licensees would be hard pressed to maintain or upgrade their ITFS systems, let alone develop and deploy advanced services. Many of the leasing arrangements also allow licensees to procure advanced services at reduced rates.

The secondary markets also promote spectrum access in rural areas. Through these leasing arrangements, a number of rural areas, inner cities, and insular communities are gaining access to broadband wireless services. For example, The Central Dakota Television Consortium, an ITFS licensee, leases excess capacity to Dakota TV, which provides wireless broadband Internet services that are usually impossible to implement due to the rural location and the small population base.

2. *Commission Policies Encourage ITFS Secondary Market*

The Commission has historically supported the development and maintenance of a robust secondary market for ITFS services.⁴ Recently, in the Spectrum Policy Task Force Report (“SPTFR,” ET Docket No. 02-135, November 2002), the Commission reaffirmed its support for secondary markets, stating that the Commission “should pursue secondary market policies that encourage licensees to provide access for ‘opportunistic’ uses above the interference temperature threshold through leasing of spectrum usage rights.” (p. 6). In the SPTFR, the Commission also identified secondary markets as a

⁴ See Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order*, 13 Fcc Rcd 19112 (1998), *recon.*, 14 FCC Rcd 12764 (1999), *further recon.*, 15 FCC Rcd 14566 (2000) (“Two-Way Order”).

means to promote spectrum access and flexibility in rural areas. To that end, the Commission has instituted numerous policies to encourage the development of a secondary market in the ITFS band to promote spectrum access.

Three years ago, upon reconsideration of the Two-Way Order, the Commission again expressed its support for excess capacity leases on the ITFS band. “We do not believe that there is any contradiction between an ITFS licensee performing its educational mission and that same licensee securing financial returns from the lease of its excess capacity. In fact, those financial returns can and do provide substantial resources to the ITFS licensee in the performance of its educational mission . . . [We] believe that current ITFS licensees are striving to fulfill that mission and that they should be permitted to obtain the maximum return from their spectrum to further that mission.”⁵

3. *Sale to Commercial Entities Would Contravene Commission Policy and Vitate the ITFS Secondary Market*

The Commission asserts in ¶2 of the NPRM “that we do not intend to evict any incumbent licensees from the affected band if they have been in compliance with our rules and continue to comply with our rules when we modify or augment them nor do we intend to undermine the educational mission of ITFS licensees . . . [rather] we anticipate that the streamlined regulations and revised spectrum plan adopted in this proceeding will facilitate the provision of advanced wireless communications services by incumbent licensees.” Notwithstanding that laudable goal, the Education Community strongly believes that if the Commission permits ITFS spectrum to be acquired by commercial interests, the market for excess capacity leases will be severely depressed, at best, and, at

⁵ Two-Way Order, *Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*, MM Docket 97-217, 15 FCC Rcd 14566, 14569 (¶¶ 9-10) (2000), cited in Comments of CTN and NIA page 9.

worst, destroyed. The excess capacity market exists because educational institutions hold the spectrum – if commercial interests have the right to buy ITFS spectrum, we expect that market to be severely undermined. There is a significant risk that incumbent licensees will be stripped of bargaining power to negotiate favorable excess capacity arrangements and that companies will have little incentive to come to the bargaining table in good faith, and every incentive to “wait out” licensees until they have no choice but to sell.

While the sale of a particular license might benefit a specific license holder, that is not the end of the inquiry. It is for this reason that we strongly disagree with NITV, which argues that the elimination of eligibility restrictions would benefit education. While it may be true that a sale of an individual license may provide needed revenue for a single institution, the proper inquiry is whether that sale is beneficial or detrimental to the communities that the license holders serve and the ITFS system as a whole. We submit that NITV’s analysis misconstrues the nature of ITFS. ITFS is not just a set of private license holders with wholly separate interests, but an organic system; thus changes in the eligibility rules do not just impact individual ITFS licensees, they have an effect on the whole system.

The ITFS system was created to achieve an important public purpose, not to bestow property rights on individual institutions. Educational institutions hold ITFS licenses in public trust, for the purpose of providing educational services. If a licensee no longer believes that ITFS is serving its educational mission, then the license should be reassigned to an institution that is prepared to carry out the ITFS mission. For the FCC to permit a sale of that license to a commercial interest would do great harm to the

remaining licensees by putting the secondary market at risk. If that market were undermined, the Commission's promises to protect incumbent licensees would ring hollow.

C. An Educational Set Aside is Insufficient to Meet the Needs of the Educational Community

The Commission asks whether an educational set aside on an otherwise commercial service would not be an adequate substitute for educational ownership of ITFS spectrum. The Educational Community respectfully submits that it most certainly would not. First, we note that the 5% set aside would turn the current 5% minimum use requirement into a ceiling rather than a floor. Although current rules permit ITFS licensees to lease up to 95% of the spectrum, many licensees retain much more than the 5% minimum to provide educational services. Current rules also permit licensees to recapture more spectrum through contractual relationships as their capacity to utilize the spectrum grows.⁶ Consequently, a 5% set aside would result in a dramatic reduction in the education services from what is currently provided by ITFS licensees, and would slam the lid on the future expansion of educational services.

The importance of ownership cannot be overstated. Ownership matters; without ownership of the spectrum, educators would have little ability to control the amount of spectrum they need, the time, place and manner of use, the quality or the nature of the services provided, or even the costs associated with obtaining the services. As a result, educators would essentially be reduced to competing among themselves for limited use of a "set aside" with no ability to demand access to new services as they are brought online

⁶ Notably, it was the Commission, not the ITFS licensees, who set the 5% minimum. In fact, many licensees requested that licensees be required to retain at least 25% of the spectrum to provide educational services.

or to appeal the decisions made by the commercial owners. While set asides such as that required for DBS or Cable have an important public purpose, there is nothing in the history of those efforts that would give educators comfort here.

Finally, ownership also matters because it brings with it the ability to lease excess capacity to secondary markets and generate revenue that supports the system . A set aside on a commercial service would be of little value without a revenue stream to develop the programming content.

The Commission need not take such drastic action revamping the ITFS eligibility rules to create a set aside to achieve its goals. Contrary to the assertion of some commenters, we have seen no evidence to suggest that the private sector will be reluctant to invest in the development of the ITFS spectrum under the current licensing regime. Indeed, the Commission's enthusiastic support for secondary markets belies this conclusion. There is every reason to believe that the secondary market will flourish under an updated set of technical rules and that the investment and expertise of the private sector will bring new services to the public, new benefits to education, and the highest and best uses to the spectrum.

D. Addressing Unlicensed Uses in the Band is Premature

In the NPRM, the Commission also asks whether it should permit unlicensed uses in the unassigned portions of the spectrum. The Education Community agrees with the majority of comments filed in this proceeding, which argue that it is premature to discuss the underlay of unlicensed uses until the band plan has been established. There are significant concerns with respect to interference of the unlicensed uses and existing ITFS technologies. Interference specifications are critical to the success of such an approach,

which cannot be evaluated properly until the allocation of spectrum has been completed. While members of the Education Community support unlicensed uses and believe that these technologies hold much promise for the future of education, we believe that the appropriate role for unlicensed uses in this band are best addressed after the new band plan has been established

Further, the Education Community vigorously opposes the New America Foundation's (NAF) proposal to allocate the lower band in the three-tiered Coalition Band Plan for unlicensed wireless uses. Not only is the NAF proposal beyond the scope of this proceeding, it is contrary to the FCC's own precedents. The issue of reallocating the band for other purposes was previously addressed and decided in September of 2001 when the Commission declined to relocate ITFS and implement 3G Wireless services in this band.⁷ We strongly believe that decision should not be disturbed.

CONCLUSION

We believe that eliminating the educational requirements for ITFS licensees and permitting commercial entities to hold ITFS licenses would irreparably damage the educational mission of member institutions. At issue here is the survival of the ITFS system. If there is no educational requirement on the spectrum and no eligibility restrictions on licensees, then the fundamental character of ITFS as a reserve for educational purposes will be lost. If this resource passes into commercial hands, there is no prospect of ever reclaiming educational ownership and usage. It is simply not necessary to adopt policies that will bring an end to ITFS in order to ensure that the

⁷ See First Report and Order," supra n.1.

spectrum is fully and efficiently utilized. For all these reasons, the Education Community strongly opposes this proposal.

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Respectfully submitted,

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Association of Community College Trustees
Association of Educational Service Agencies
Association of Jesuit Colleges and Universities
Association of Research Libraries
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EDUCAUSE
Florida Community College System
Huntsville City Schools ETV
International Society for Technology in Education
Kirkwood Community College in Iowa
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